

## CLAIMS

1. A stabilized composition of propargyl bromide comprising said propargyl bromide in combination with an azeotropic solvent mixture for diluting said propargyl bromide and preventing shock or temperature sensitivity throughout the life cycle of said propargyl bromide.

2. A composition for controlling soil-born pests comprising an active concentration of propargyl bromide in combination with an inert solvent in an amount sufficient to avoid the presence of predetermined levels of said propargyl bromide both in the liquid and vapor phases thereof.

3. The composition of claim 1 wherein said active concentration of said propargyl bromide is at least about 50 wt.%.

4. The composition of claim 3 wherein said active concentration of said propargyl bromide is at least about 65 wt%.

5. The composition of claim 4 wherein said active concentration of said propargyl bromide is greater than about 65 wt.%.

6. The composition of claim 1 wherein said amount of said inert solvent is sufficient to maintain said vapor phase to include less than 95% by volume of said propargyl bromide at a predetermined temperature between room temperature and 90°C.

7. The composition of claim 1 wherein said inert solvent comprises a plurality of solvents.

8. The composition of claim 1 wherein said inert solvent comprises two solvents.

9. The composition of claim 1 wherein said inert solvent comprises a single solvent.

10. The composition of claim 9 wherein said solvent forms an azeotrope with said propargyl bromide.

11. The composition of claim 7 wherein said plurality of solvents mimics an azeotrope-like formulation that will act as an azeotrope with said propargyl bromide.

12. The composition of claim 7 wherein said plurality of solvents forms an azeotrope with said propargyl bromide.

13. The composition of claim 7 wherein said plurality of solvents comprises a mixture of solvents.

14. The composition of claim 7 including at least about 5 wt.% of said solvent.

15. The composition of claim 9 wherein said solvent is present in an amount sufficient to form an azeotrope with the entire amount of said propargyl bromide present in said composition.

16. The composition of claim 10 wherein said solvent is selected from the group consisting of alkanes, cycloalkanes, alcohols, and paraffinic and isoparaffinic solvent mixtures.

17. The composition of claim 16 wherein said alkanes are selected from the group consisting of n-heptane, isooctane, n-hexane, n-octane, and mixtures of heptanes and cyclohexanes.

18. The composition of claim 16 wherein said cycloalkanes are selected from the group consisting of cyclohexane and methyl-cyclohexane.

19. The composition of claim 16 wherein said alcohols are selected from the group consisting of 1-propanol, isopropyl-alcohol, tert-butyl-alcohol, and allyl-alcohol.

20. The composition of claim 16 wherein said paraffinic and isoparaffinic solvent mixtures comprise C7 through C9 hydrocarbons.

21. The composition of claim 10 wherein said solvent is selected from the group consisting of n-heptane, isooctane, mixtures of heptanes and cyclohexanes, cyclohexane, and methyl-cyclohexane.

22. A method for the stabilization of propargyl bromide comprising diluting said propargyl bromide with an azeotropic solvent mixture whereby shock and temperature

sensitivity are prevented throughout the life cycle of said propargyl bromide.

23. A method for the stabilization of propargyl bromide comprising adding an inert solvent to said propargyl bromide in an amount sufficient to avoid the presence of predetermined levels of said propargyl bromide both in the liquid and vapor phases thereof.

24. The method of claim 23 wherein said inert solvent is selected from the group consisting of alkanes, cycloalkanes, alcohols, and paraffinic and isoparaffinic solvent mixtures.

25. The method of claim 24 wherein said alkanes are selected from the group consisting of n-heptane, isooctane, n-hexane, n-octane, and mixtures of heptanes and cyclohexanes.

26. The method of claim 24 wherein said cycloalkanes are selected from the group consisting of cyclohexane and methyl-cyclohexane.

27. The method of claim 24 wherein said alcohols are selected from the group consisting of 1-propanol, isopropyl-alcohol, tert-butyl-alcohol, and allyl-alcohol

28. The method of claim 24 wherein said paraffinic and isoparaffinic solvent mixtures comprise C7 through C9 hydrocarbons.